

What is claimed is:

- 1 1. A method comprising:
2 passing data through a reconfigurable partial response encoder to create a
3 spectral notch; and
4 modifying a characteristic of the reconfigurable partial response encoder to
5 change a frequency characteristic of the spectral notch.
- 1 2. The method of claim 1 further comprising pre-coding the data prior to
2 passing through the reconfigurable partial response encoder.
- 1 3. The method of claim 2 further comprising passing the data through a spectral
2 whitening encoder.
- 1 4. The method of claim 1 wherein modifying a characteristic of the
2 reconfigurable partial response encoder comprises modifying a clock frequency of
3 the reconfigurable partial response encoder.
- 1 5. A method comprising:
2 detecting errors in a data stream received over a wireless link; and
3 modifying characteristics of a partial response encoder in a digital data port
4 to reduce the errors.
- 1 6. The method of claim 5 wherein modifying characteristics comprises
2 modifying a clock frequency.
- 1 7. The method of claim 5 wherein:
2 the wireless link operates in a frequency band; and
3 modifying characteristics of a partial response encoder comprises moving a
4 spectral notch in frequency relative to the frequency band.

- 1 8. The method of claim 7 wherein modifying characteristics comprises
2 modifying a clock frequency at which the partial response encoder operates.
- 1 9. An apparatus comprising a reconfigurable partial response encoder to
2 encode data and create a spectral notch in the region of a wireless frequency band.
- 1 10. The apparatus of claim 9 wherein the spectral notch is between about 800
2 MHz and about 900 MHz.
- 1 11. The apparatus of claim 9 further comprising a low pass filter to reduce
2 spectral energy in wireless frequency bands above the spectral notch.
- 1 12. The apparatus of claim 9 wherein the reconfigurable partial response
2 encoder implements $1-D^4$.
- 1 13. The apparatus of claim 12 wherein the reconfigurable partial response
2 encoder operates at a clock frequency of approximately 3.4 GHz.
- 1 14. The apparatus of claim 9 wherein the reconfigurable partial response
2 encoder implements $1-D^2$.
- 1 15. The apparatus of claim 9 wherein the reconfigurable partial response
2 encoder implements $1+D$.
- 1 16. The apparatus of claim 9 wherein the wireless frequency band corresponds
2 to global positioning system (GPS) signals.
- 1 17. The apparatus of claim 9 wherein the wireless frequency band corresponds
2 to cellular phone signals.

1 18. The apparatus of claim 9 wherein the wireless frequency band corresponds
2 to wireless local area network (WLAN) signals.

1 19. An apparatus comprising:
2 a wireless interface circuit; and
3 a digital interface circuit that includes a partial response encoder to create a
4 spectral notch.

1 20. The apparatus of claim 19 wherein the spectral notch is near in frequency to
2 a frequency of operation of the wireless interface circuit.

1 21. The apparatus of claim 19 wherein the partial response encoder implements
2 $1 - D^4$.

1 22. The apparatus of claim 19 wherein the digital interface circuit further
2 comprises a pre-coder to obviate a need for memory in a receiver.

1 23. The apparatus of claim 19 wherein the wireless interface circuit comprises a
2 global positioning system (GPS) receiver.

1 24. The apparatus of claim 19 wherein the wireless interface circuit comprises a
2 cellular phone interface.

1 25. The apparatus of claim 19 wherein the wireless interface circuit comprises a
2 wireless local area network interface.

1 26. An electronic system comprising:

2 a first integrated circuit including a wireless interface circuit and a digital
3 data port with a partial response encoder to mitigate interference to the wireless
4 interface circuit;
5 a second integrated circuit in digital communication with the digital data
6 port of the first integrated circuit; and
7 an omni-directional antenna coupled to the wireless interface circuit of the
8 first integrated circuit.

1 27. The electronic system of claim 26 wherein the wireless interface circuit
2 comprises an apparatus to operate between about 800 MHz and about 900 MHz.

1 28. The electronic system of claim 26 wherein the wireless interface circuit
2 comprises an apparatus to operate between about 2.4 GHz and about 2.5 GHz.

1 29. The electronic system of claim 26 wherein the partial response encoder
2 includes a filter to implement $1-D^4$.

1 30. The electronic system of claim 26 further comprising an adaptive circuit to
2 measure errors in data received by the wireless interface circuit and to modify
3 characteristics of the partial response encoder.